

BAGHEERA

MATRA SIMCA *Bagheera*



Matra-Simca Bagheera, later called Talbot-Matra Bagheera in its last two years of production after Chrysler sold Simca to Peugeot who then rebranded the company with one of the many unused marque names that came with the sale, was a clean slate design for Matra. Peugeot chose the Talbot brand for Simca in order to move the company upmarket without going too far by using Delage or Delahaye; the name Bagheera was taken from the Black Panther Bagheera in Kipling's Jungle Book stories.

Originally released at the 1973 Geneva Motorshow, it resulted from the tie up between Matra and Chrysler's Simca division which began in 1970 while Matra was building the Ford V4 engine M530 sportscar. At the time Matra needed a decent retail network and Chrysler-Simca was looking for some salesroom kudos. Matra were at their peak in motorsport with Jackie Stewart's F1 World Championship title in a Matra-Tyrrell and consecutive victories in the 1973/74 Le Mans with the Matra 670B and C, while Chrysler's French Simca division had built up an enviable marketing position in the 1960s and 70s by selling their small Simca 1000 saloons in barge loads, and making their small fwd drive 1100 saloon – a French Austin 1100 if you like - France's best-selling car. These two saloons formed the basis for the new sportscar.

Chrysler had by then inherited 2 Ford powered sportscars - the first being Rootes Group's Sunbeam Tiger in 1967 - which was not a good look and one they were keen to get rid of as quickly as possible. The Tiger lasted 1 year under Chrysler as their V8s were too bulky to fit the Sunbeam's engine bay. Chrysler didn't have the same control over Matra as unlike Rootes Grp, they did not own Matra. Attempts to fit a suitable Simca engine in the M530 had failed from an economic engineering standpoint, so plans were made for a stylish replacement.



Prototype Matra 550 right shows that there was still some cosmetic work to do, even if the fundamentals were already there.



Matra's M530 was a mid engine 2+2 sportscar; the first of this layout to be produced in any volume. Simca had also just recently stopped their very attractive Bertone styled Simca 1200 S Coupe which they manufactured between late 1967 and 1971. With a typically French eye towards useful purpose, the thought of how to combine such previous sporting practicality in a modern mid-engined sportscar resulted in a car with 3 seats abreast, with the driver placed on the left and only in LHD form as the factory built no RHD versions. Previous to this there had been a couple of 3-seater show cars, the 1965 Ferrari 365 prototype and the 1968 Bizzarrini Manta, but these were one-offs and had the driver in the middle, like the later McLaren F1. In fact, a mid-position driver location was considered by Matra but dismissed as being impractical in everyday use and too costly to make.

To complement this practicality of 3-abreast seating, which was another first in lateral thinking for mid-engined production cars, the Bagheera also had a large and useful boot. The company's idea was to produce

an inexpensive car, using one of Simca's off-the-shelf engines and as much existing running gear as possible without compromising the design. The possibility of producing another 2+2 car was put aside as it would have resulted in a larger car with greater weight. The only engines Simca had at the time that were considered suitable for such a venture were those from the Simca 1000 and 1100 salons. Their limit in size and thus power required some serious lateral thinking if the new cars could claim the title of sportscar; hence 3 seats abreast.

However it was also considered essential for the styling to be just right, i.e. dramatic, yet aerodynamically efficient but realistic to produce in volume and more advanced than the M530. And although the M530 was considered aerodynamic in its time, Matra felt that there was room for improvement, and ensured that the new car included lessons learned from more recent aerodynamic research and racing.

To achieve acceptable levels of interior space, the car was made a little wider than

Matra's previous models and designed with convex sides, in plan view, in order to provide sufficient hip and shoulder room. However, the combination of seating layout, reasonably compact length, and low height for a production car is deceptive as the car is not as wide as it appears (156.5x47.2x68.3" respectively).

Comparisons with contemporary cars of the period show that the Bagheera was only 3.2" wider than the VW-Porsche 914, and 2.4" narrower than the Mercedes SL.

The M550, as the Bagheera was called in development form, was originally penned by Jean Toprieux. He got the essential shape right, but it needed detailing so as to take it from a slightly awkward enfant to a resolved adult. The further development was handled by Jacques Nochet and Greek designer Antoine Volanis (who has often been credited as the car's sole designer). These two were tasked to take the raw form and turn it into a recognisably European exotic looking machine that would also meet the practical requirements seen necessary for volume sales.

The Simca engine chosen to power the Bagheera was their 1294cc engine, taken from the fwd 1100Ti model complete with 4-speed transaxle and transverse layout. It produced a reasonably healthy 82bhp – 9 bhp up on the iconic 1275cc Mini Cooper S. The original car was a light 885kg dry in its earliest form, which resulted in good performance for its spec with a top speed quoted as 112mph (180 kph) and 0-60mph in 12 seconds. Excellent aerodynamics was a factor in this as it was in its mpg figures that were said to be no less than 30mpg, no matter how hard it was driven. These were good news for the sales department at Matra-Simca as economy and high cruising speeds are two important requirements in France.

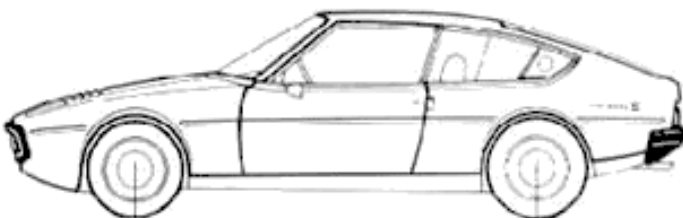
Again, like the M530 before, the British press did not achieve the same performance results as the French and German press, both of whom confirmed Matra's claims. But also again, as the cars were not being produced in RHD form, the

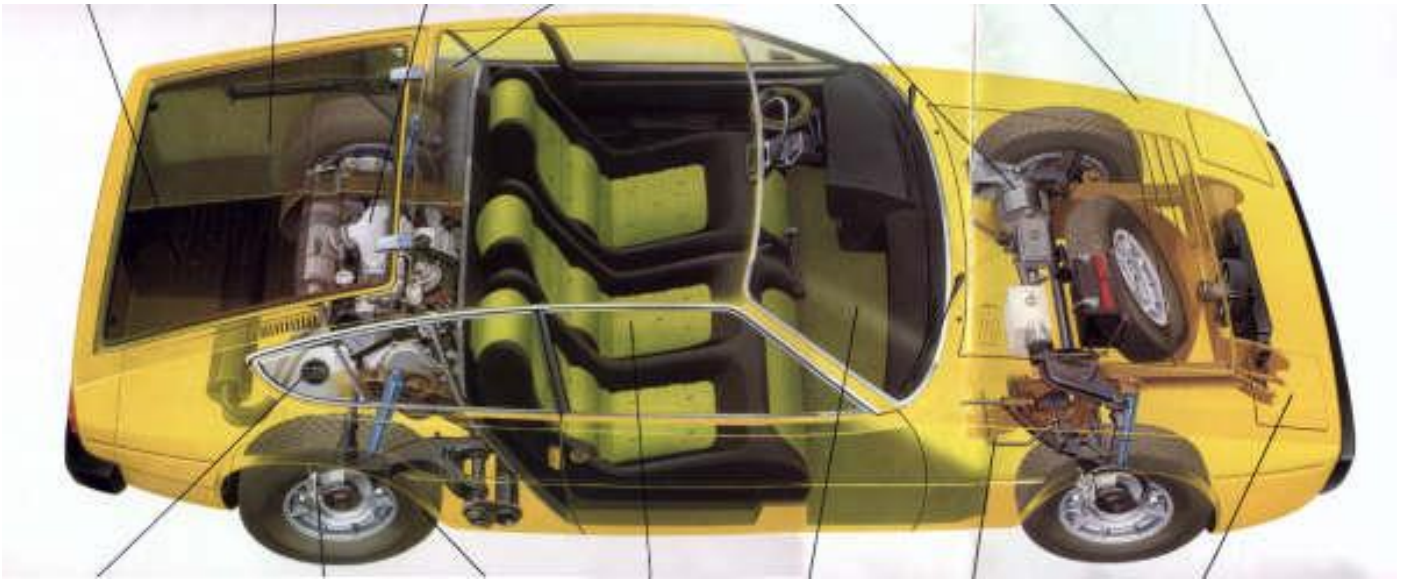
British press were amongst the last to test the cars, and in each case they stated that their test cars were in need of a tune...

Pre-production Bagheeras were rigorously tested, from Saharan Mauritania to Lapland, to ensure that the tightly packaged car worked in all conditions. There were some initial teething troubles with interior cooling, especially the luggage area, unsurprisingly as this is still a challenge to designers, but overall the testing was concluded without much incident. The fact that the mechanicals had been rigorously tested in production Simcas went a long way in making this task relatively easy, but construction and packaging were critical factors too, and these were down to Matra design. As a result, the development programme was completed rapidly, making good savings for the company.

The only real unforeseen shortcoming was chassis corrosion which proved to be quite prevalent. This issue, it would seem, was partly a result of the grp body over unitary pressed steel chassis construction and has resulted in many an otherwise good Bagheera being consigned to the scrap heap in later years. This situation was rectified in its successor, the Murena, which had a galvanised chassis. It is a pity that there is no Matra/ French sportscar Heritage department like there is for many older ex British Leyland cars, where new replacement chassis are produced.

Technically speaking, the basis of the car is an interesting mixture of unitary steel structure with grp body panels attached. A number of period reports suggested that its makeup is that of a pressed-steel floorpan with a complete polyester grp body atop – an inference being that the body was also of normal polyester grp construction. However, it was much more than both of these.





The under-the-skin chassis design is the same as most unitary constructed cars. It has pressed and/or folded sills, front and rear firewalls and bulkheads, floorpan, door surrounds, pillars, cant rails, front and rear structural sections and so forth. The difference is that where a metal body panel would normally attach, there was now a grp polymer panel, including the roof. To keep tooling and production costs low, wherever possible the pressings were simple with the use of swages and complementary forms to provide stiffness and strength. Of course, some parts had to be more complex, such as those exposed to view – sections of the pillars, door jambs etc – but these were not a major part of the overall design. Also, in the name of good airflow, the floorpan was kept flat and relatively free of obstruction.

The body manufacturing process, known as LP, was also developed with the same eye to cost effectiveness. LP had only been commercially available for 12 months at the time Bagheera production began – meaning that Matra brought the new processes into the design stage of the Bagheera when it was not yet in the public arena. LP is an abbreviation for low pressure; a process that uses low pressure pressing of the glass reinforced resin panels with the ability to run at raised temperatures during the bonding process. This is carried out using heat and low pressure, and once bonded together the panels form a rigid outer shell. Metal tooling is used to form the panels, but because of the low pressure the tools are relatively cheap to make and have a good production life. It was said at the time that the cost of all body production tooling would not have exceeded £60,000 while the entire

body/chassis tooling would have been no more than £100,000.

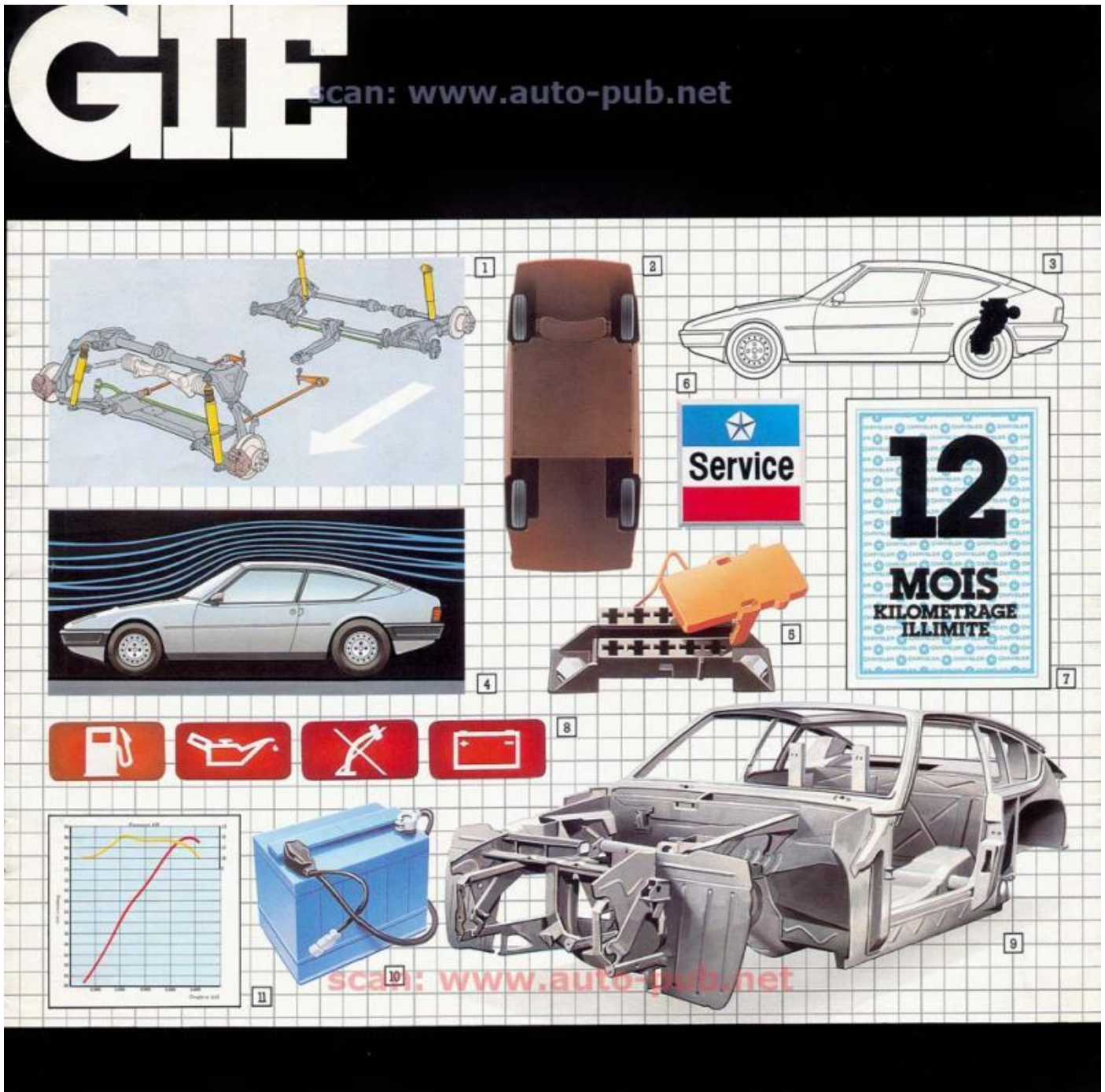
The body consisted of 19 component panels with a combined surface area of 150 sq.ft (13.95 sq.m) and a weight of 120 lb (54.55 kg). Production rates were based on 40 units per day and as such were expected to last for an easy 60,000 units (over 4 years if manufacture was 7 days a week, 365 days a year). The process also allowed for accurate and consistent panel thicknesses and for variation in thickness or depth depending on the stresses and production needs. In terms of strength compared with a like design steel body, while the tensile strength and flexure of grp is less than mild steel – the amount depending on the type of layup, materials and resin ratios etc, grp is about a fifth the unit weight. The end result is that an equivalent grp panel (in strength and stiffness) is about 30% lighter than a steel one, even though it is about 4 times as thick.

Suspension components were from the fwd 1100 Ti Simca, but mounted on new crossbeams as the width of the Bagheera at 68.3" was almost 6" (150mm) wider. The front suspension uses longitudinal torsion bars that extended from the lower wishbone inboard pivots while location is by unequal length pressed steel wishbones. Near vertical telescopic dampers are mounted part way out on the lower wishbone; the hub unit appears similar to that on the M530 with a long top neck - naturally, the fwd driveline couplings are removed. An anti-swaybar is used while the steering rack is mounted behind the axle line as per the 1100 Ti where it sits behind the engine. Brakes are 9.4" solid discs (239mm), said

to be from the Ti although these are quoted as 9.25", and use a 6" Tevès Bendix servo; some versions used the Mastervac tandem servo usually supplied in US spec 1100s.

At the rear, the essential trailing arm rear suspension from the 1100 is used instead of transposing the front end to the back. This made production sense as it kept a consistent production process going without loading up the tooling for the wishbone suspension. The rear hubs were updated to take the drive components, while the Bagheera had rear disc brakes too – 9.2" solid – from the Rallye II, with a mechanically operated handbrake operating directly on the discs. The trailing arms were semi-like the M530 in design and in the way

they hung off a bushed solid shaft mounted off two lugs that extend from the crossbeam. The purpose of this design was to limit rear end toe-steer under cornering and bump loads, but in the Bagheera's case, the mounting lugs face rearward and up, rather than straight up as in the former car. Transverse torsion bars mounted off the pivot shaft suspend the rear while a long telescopic damper is fitted on each side out near the hub. All the torsion bars are adjustable, so corner weight suspension tuning is very straightforward. Wishbone rear suspension from the front of the Ti was tried during early development, but with longitudinal torsion bars, proved problematic to mount and as a result, difficult to adjust.



The engine itself was mounted off the middle of the suspension beam at its front and the two chassis horns at the sides using quite large internally suspended bushes. On the first series Bagheera, the engine was most often the 1294cc 1100 Ti unit with two twin choke Weber 36DCNF carburettors, 9.8:1 compression and an oversquare 76.7x70mm bore stroke layout. Maximum power was quoted at 84bhp 6000rpm with 6500 redline - up 2 bhp on the 1100 Ti and 1000 Rallye 2. This was accredited to the different exhaust system but indeed the quoted compression ratio was 0.3 higher than the saloon's, while a maximum torque of 79lb.ft occurred at a medium 4400rpm. The engine was laid back 15 degrees, as per the fwd car, which was excellent for packaging behind a firewall separating the engine from the seat's sloping backrests.

There was also an S version of the Series 1 in 1976, just before the Series 2 came out. It used the later 1442cc motor which was under-square with the same bore but a 78mm stroke. In the Series 2 there was a standard version with a single 36DCNF carb that produced a similar 83 bhp but with more torque, at 91.5 lb.ft (126 Nm), and an



S with twin 36DCNF's and 90 bhp but slightly less torque of 88.6 lb.ft, both with 9.5:1 compression. The Mk1 S would have been the fastest production Bagheera, but none were tested. However, English establishment Graham Pope in Middlesex imported the Mk1 S but sold it in LHD from only. Without sunroof and even radio, he sold them for a premium price of £4997. In its favour were rather brisker acceleration and a claimed top speed increase of 10

mph, although 118 mph is the highest quoted top speed of any model Bagheera.

Throughout production, right up until 1979, the Bagheera retained the original 4-speed transaxle. A 5-speed did not appear in the Talbot range until the end of Bagheera production, but in the last year 5-speed 'boxes started to be used in the higher spec S and X models.

Dimension wise, the Mk1 was 3975x1734x1200mm (156.5x68.3x47.2" – length, width, height), 918kg dry (960kg kerb)

balanced 41% front, 59% rear, and 2370x1402/1460mm (93.3x55.2/57.5" wheelbase, front/ rear tracks). The 1976 Mk2 grew not only in engine size, but also marginally in overall stature at 4010x1740x1220mm (157.9x68.5x48" – length, width, height) and 970kg kerb. Wheelbase and tracks remained as they were as the underpinnings did not change. Although weight increased marginally from Mk1 to Mk2, the stronger power-band and

torque resulted in obviously improved performance.

The original Bagheera was unveiled to the press on the 14th April 1973, at France's most beautiful Annecy Lake, in south eastern France. However, the surroundings only served to enhance the launch, which went down well. The gathered press were taken by its Italianate looks and most were not shy in praising its beauty and indeed in 1974 the Bagheera actually won a trophy for the car with the most beautiful and yet functional design; it competed for the prize

consignment of 500 yellow Bagheeras were readily available at SIMCA dealers across France. The launch couldn't have been better timed with Matra's 670B taking the podium place that year.

On test the thing that stood out in all the reports was the ride, handling and road-holding. With only a 93.3" wheelbase it was noted that slightly choppy or nodding ride could be expected on some of the rougher pave, and indeed it was, but it was also noted that it was well controlled; to quote, 'with a short wheelbase it does not travel



against cars such as the Lancia Beta and Ferrari 308 GTB – all of which it beat. The interior drew the most attention with its useful seating arrangement and overall excellent accommodation; generally, it was well received. The lack of mechanical refinement was noted by some and yet in later road tests its refinement was complimented. However there were no complaints about the car's handling, which rated very highly indeed. Also noted was the way the car cut through the air at higher speeds with obviously good aerodynamic design allowing speeds of up to 180 kph with a meagre 63kW, and yet no CdA figures were quoted at the time. The main official unveiling took place at the 1973 Le Mans 24-hour, and to mark the occasion, Matra ensured that a pre-launch

level like a magic carpet ride, but suspension maintained composure over the rough back road pavements'.. And that was pretty much the sum total of any possible negative comment; the rest was all glowing.

With trailing arms the rear roll centre would be at ground level and looking at the layout, the front would be close to ground level too, but low vehicle centre of gravity, quite wide track and anti-sway bars helped keep the car level although like all French cars of the period, its ride was compliant and some roll was an expected part of the deal. However, it was often noted by the best English-language road testers that handling, ride and road-holding were always very good in French cars, with the Bagheera being noted as exceptional.

Handling is pure mid-engine, and with different front and rear tyre widths, 155 HR13 and 185 HR13", the Bagheera is very quick through bends with good grip and balance both ends. When it lets go at the rear there is just a small jink that needs to be corrected as-it-happens with small reflex on the steering wheel; i.e. not over corrected.

Front end understeer was not encountered in any of the official reports except one where the driver - our Urraco owner mentioned below, took the car on an extended journey. At one stage when pushing hard through an open but difficult downhill bend, it pushed wide at the front but quickly came back into line when a quick lift-off on the accelerator 'brought instant correction'.

Many contemporary reports and road tests saw writers making slightly cheesy comments about threesomes with wife and mistress etc; you can tell they were all heterosexual males making the comments - there was even a photo with two beaming young females sitting in the passenger seats - as none commented on it being an ideal steed for a slick city girl and her two lovers.

Of more relevance was the comparison with Lamborghini's just introduced Urraco, which started production the same year and came with 2+2 seating and mid-mounted 2.0, 2.5

Contemporary reports of the Urraco were glowing, it being seen as a well-balanced combination of performance, ride, handling, road-holding, with practicality and comfort in use, making it a very useable junior supercar. The Bagheera was commented by many a road tester as being in turn a junior Urraco. A well-known Australian tester who spent much time in Europe had bought his own Urraco; in his test of the Matra one could almost feel his affinity with the car when he made several references between it and his Urraco.

It is thus rather a coincidence that Matra themselves (but not with the blessing of Chrysler, which as a larger company was driven much more by safe financial return rather than enthusiasm, and thus only supported the commercially expedient 1.3 litre concept) proposed and built a U8 Bagheera - in fact it is said that 3 prototypes were built. These, if they had been produced, would have been the French Urraco equivalent, but more on this later. It is thus interesting to note that Chrysler subsequently owned Lamborghini for a while...

As noted previously, by the time the Mk1 test car reached Anglo Saxon scribes it was in need of a tune, so performance comparisons are not entirely fair and do not match the experiences coming out of deeper Europe. The only test figures published in English show a 0:60mph time



and 3.0 litre V8 engines. At that stage the Urraco was exported with the 2.5 litre engine only; the 2 litre being pretty much Italy only, and the 3 litre not yet made.

of 12.3 sec, 70 in 16.4, 80 in 21.8, 90 in 30.4 and 100mph in 49.1 seconds, topping out at a best of 102mph. Apparently some of the well-known Euro mags equalled the performance claims of the factory, getting 112mph and more flat chat; with European

autobahns, they may have taken a longer run to get there as the English tended to use a 1 mile run when recording maximum speeds...

However, early in 1974 the German Magazine *Auto, Motor und Sport* tested a 1294 cc Bagheera, comparing it with obvious competitors in the process. The car's lightweight body served it well in the performance comparisons: a top speed of 116 mph (186.5 km/h) was recorded as against 176.5 km/h (110 mph) for the Alfa Romeo GT 1300 Junior, despite the Alfa Romeo's claim of an extra 3 bhp. The Matra also beat the Alfa on acceleration, taking 12.2 seconds to reach 100 km/h (62 mph – about 11.7



seconds to 60mph) as against the Alfa's 13.5 seconds. The Bagheera, at DM 14,198 was noticeably cheaper than the Alfa's DM 14,490 listed price tag, though both were undercut on price by models from mass market producers such as the 1900 cc Opel Manta SR at DM 13,990.

In England, the Urraco owning test driver provided possibly the best insight into the car's dynamic behaviour when he took an imported Mk1 S on an extended but un-instrumented road test; "a light and easy clutch despite the long throw, smooth and light and steady steering, plus a gearshift with not much travel and a crisp action, but not much feel either – i.e. effective without being especially appealing. The driveline in traffic was no more finicky or different from driving a regular saloon, with fairly good flexibility in higher gears, no trouble in lower ones and crisp throttle response when

needed; not a great deal of bite lower down, but with a 90bhp 1.4 litre engine, 4-speed transmission with a 3.59 final drive, and weight of 960kg, it was as good as one could expect. As with the Alpine saloon where the engine came from, it got noisy above 5500rpm, but with good gear ratios and take-up, brisk persistent performance, one rarely felt the need to use the 6500 redline... He described it as a nippy car that encourages one to drive for enjoyment, passing slower traffic and driving quickly into corners, even wet ones, with much confidence. This confidence is

found quickly as it was described as having 'a sweetness of character with charming manners that cannot be missed'.

On fast steady state corners, such as one of the very large roundabouts found in UK, entering the corner quickly produces mild understeer felt by a slight pull on the steering wheel, but rather than this building into washout or running wide as one pushes on, the rear starts to edge out and the balance becomes neutral. Pushing harder the Bagheera will nudge into gentle oversteer that is held by gently winding back the lock.

As mentioned before, on winding open roads, any corners that produce understeer can be corrected by lightly lifting the throttle, and ones that produce oversteer by lightly reducing lock. The Bagheera responds naturally to throttle reactions,



sized boot as previously noted, which is a separate closed compartment behind the motor and at 9.7cu.ft, accommodates 4 average size suit-cases plus soft gear. The spare tyre and battery live under the front bonnet along with brake cylinders, servo etc.

Visibility from the driver's seat with its wide windscreen and slim pillars is good, especially as most of the bonnet is visible.

which is usually more obvious in mid and rear engined vehicles anyway, but the car never over reacts and a fast driver is able to use this attribute to adjust and fine tune cornering lines. On test *Autocar* found the same and also commented on the steering kickback on really rough roads which was not evident on normal roads, and a natural stability in braking no matter what road surface was encountered. They also noted that as the car's centre of gravity and centre of pressure were coincidental (close), it was not subject to yaw in crosswinds, with which it coped well.

Brakes, although solid discs all round, were found most effective in all conditions with a level of servo that gave good feel and modulation. A swept area of 320sq.in provides a good 284 sq.in per ton, however the pedal did start to soften after 4 or so high speed stops, yet braking remained 'confident'. The mechanical rear handbrake on discs was found most effective too.

Fuel economy of 30.8 mpg gallon was achieved on test, with about 40mpg considered about right for all round road use. With a 13.5 gal tank a 400 mile range could be expected.

With good sound and heat insulation, engine noise is well suppressed for a car of this layout with engine noise only becoming a roar near the 6500rpm redline, which is typical of Type 315 Simca engines. Wind noise is also minimal. The compact east-west engine layout provides for a good

What was most noted too was the fact that rear and side vision had very small blind spots which is most unusual for a mid-engined car. This was attributed to the large rear glass hatch and the full sized insulating screen between it and the passengers, plus the long and wide curved side glass. The instrument panel itself was likened to a control panel with a large upper lip to reduce glare; all the instruments are mounted behind a smoked screen and come to life when the ignition is turned on. They then glow green, somehow resembling a big lit-up radio tuner. The speedo and tach are both large and very visible, with a range of warning lights and minor gauges – oil pressure, temperature, fuel, ammeter – below them but still easily visible to the driver. The radio mounts, like in the M530, on its side in a separate pod to the right, with the heating and ventilation controls in the same pod but further to the right again.

Autocar, when testing a Courrèges in 1294cc Mk1's presentation, commented on the car being well equipped and finished to a high standard with good carpeting and cloth upholstery, and with the facia trimmed to match. Things that today might be more common, but were noted as beyond the norm in 1976 included tinted glass, driver's footrest, electric windows, quality radio, fully instrumented. They also liked the tweed-like interior trim, saying it was tastefully finished, neat, tidy and good looking. They also commented on the high quality finish of the poly-resin body, lined boot and the powerful halogen lights.

Autocar called it a fine little car, thoroughly in tune with the times, and all that a modern sporting machine should be; roomy, comfortable, civilised and with very good handling and roadholding.

The process of improvement continued throughout the life of the Bagheera, and saw the launch of the Mk2 in 1976, one of which was tested in LHD from by the English *Motor* magazine. Again they had an end of term road test car that was past its prime with a clutch that slipped on take-off and during gear changes. Also noted was a lack of low down torque compared with rivals, and yet an ability to maintain its acceleration rates at higher speeds, indicating both higher gearing and better aerodynamic penetration. An ability to maintain relaxed high speed cruising supported these observations. Top gear gave 20.3mph/1000 rpm in the Mk2, and 17.7 in the Mk1, which are reasonably high for small engined cars. Cd was quoted by both the factory and an aerodynamic database as 0.33, which is much better than most rivals then and now, and with a low roofline, the cross sectional area was 1.721m² producing a good metric CdA of 0.568 or 18.52 imperial. The later Mk2's database results were 0.35/0.610 for the Cd/CdA with a slightly greater frontal area. But as noted above with regard to centre of pressure, there is more to aerodynamics than pure drag, where lift or down force and the resultant balance are all a part of the picture.

With these things in mind, *Motor* recorded the following results with 'their' 1442cc 90bhp Mk 2 Bagheera S; 0.60mph in 11.6 sec, 70 in 15.3, 80 in 20.5, 90 in 29.0 and 100mph in 43.5 seconds, topping out at a best of 112.5mph over a ¼ mile on a banked circuit – which in itself creates mechanical drag. A standing start mile achieved 102mph. The European magazines were said to achieve a maximum speed of 115mph and 0-60mph in 11.2 seconds. Still, when one compares similar size cars of the period, these are quite respectable

figures, especially considering its all-round practical nature; i.e, not an out an out racer, but a car that could be used for everyday transport too.

The chassis remained virtually the same as the Mk1, and the body was based on the Mk1 tooling, while engines were now only the 1442cc unit in single and double carburettor tune – standard and S versions. Bagheera websites say that the body modifications were mainly limited to the addition of new bumpers and a more aerodynamic nose, although there was a quoted width increased of 6mm which appears to be the result of slightly more flared wheel arches, and a height increase of 20mm, which seems odd considering the tyre specs remained the same – i.e. no ride height increases. However, other literature says that the Mk2 had a major restyle which left little unchanged. Certainly, when viewed side by side the Mk2 seems a little less rounded than the Mk1 with a slightly

Mk 2 Bagheera with wrap around bumpers



tucked-back angle to the rear tailboard and changes to the valances under the bumpers both front and rear. Rear quarter light window details changed too. In 1978, when the X model was released, the dashboard was changed and 1979 the hidden door handles were replaced with conventional ones.

Although the Matra-Simca Bagheera was never officially imported into Britain, many examples did find their way on to their shores; some being converted to right hand



X-model Bagheera and rare shot of rear end of Mk2. Not as balanced as Mk1.



are highly capable sportscars with agility and impeccable road manners. Their ride would do justice to a Citroën CX – as would the effective brakes – and the leech like

drive, using in some cases a chain and sprocket to transfer the right hand steering column rotation to the left hand side steering rack pinion - hmm. As a final summary of the impact the Bagheera had on some commentators, *CAR* magazine's rather famous LJK Setright was a confessed fan and even in 1980, at the end of its production life, Setright still had glowing things to say: "I liked the Bagheera. All God's children liked the Bagheera. If they did not, it must have been because it did not have enough horsepower or enough gears. It was good that car, like a poor man's Urraco. Long serving readers will remember how both the Editor and I were profoundly impressed by the supple ride, sweet steering and incomparable roadholding of the little Lamborghini, and were even more pleased because it was a little one..."

Even a modern classic car comparison test of recent times had the following to say; 'on start up the death rattle of the Alpine engine is replaced by an encouragingly rorty exhaust note, but once moving it becomes apparent that the Bagheera engines are nothing to get too worked up about – they do an adequate job of pushing the cars along at a reasonable pace, but nothing more. This was a great shame,' they continued, 'as otherwise the Bagheeras

grip, phenomenally high cornering powers and wonderfully light and communicative rack-and-pinion steering.' They noted that the missing ingredient, an engine to do justice to the rest of the car, came with the Murena, which even in 1.6 litre form, at 118bhp was a big step up in performance.

This accolade cum slight disappointment can be viewed another way of course in that it goes to show just how much greater our expectations are these days when it comes to acceleration performance as at the time there were few 1300cc cars that had similar acceleration and top speed – we are talking 1300cc Alfa Romeo Zagato Juniors and Lancia Fulvia HFs here, and it took some special 1600cc cars to go faster. Even then, top speed was still in the same ball-park. One might ponder the point that as the Bagheera was so accomplished in all other ways that younger drivers, whether or not they work for a classic car magazine, tend to equate it with more modern machinery that go faster, usually with larger engines or turbochargers attached. Hmm, that's a thought, a Heritage Bagheera with an updated 1592cc Tagora engine, 5 or 6-speed transaxle and small supercharger...

In the end, Matra made enough money from the Bagheera to put towards an improved car based on the same parameters, and this appeared at the 1980 Paris Motorshow; the Murena, still with 3-abreast seating but now with a galvanised chassis and the 1592cc 92bhp motor with 101 lb.ft / 137 Nm of torque @3000 from the last Talbot Alpines and Solara saloons. This too was later superseded by an 118bhp 2.2 litre sohc Chrysler 160 motor in the quest to stay competitive. Insufficient power and poor build quality were stated in the end by the press as being the demise of the Bagheera, at least when it came to export markets like Germany.

However, none of this was a real issue when each version of the car was reported on by contemporary press, and indeed, as we have seen, all round quality was complemented and often highly praised along with its prettiness, generous accommodation and sweet chassis. If none else, at least the French bought them in droves. However, along with the developing need for more performance, longevity did become an issue with the rusting chassis' and some interior materials - most notably the funky trims on some of the cars not lasting the distance and becoming worn and tired looking with use. After 7 years of production, a new or updated model was needed anyway, and with almost 48,000 cars produced and sales slowly falling, plus the estimated tooling life of 60,000 units approaching, it meant that all things were stacking up towards an all-new model. And apart from a few special editions, that pretty much concludes the Bagheera story.

How many were built? Between 1973 and into '76, 25,260 Series 1s were made excluding the special edition Courrèges designer model – 216 made, and a few Series 1 S versions using the larger 1442cc engine. 1974 was the best year by a margin

with 11,266 units sold. Series 2 production rounded out at 20,345 with a further 445 Courrèges and 1,440 Series X cars made, totalling 47,796 altogether.



Mk 1 Courrèges Bagheera



Special Model Bagheeras

BAGHEERA COURREGES

This series was developed by a renowned French designer of the time who actually studied to be a civil engineer before becoming a fashion designer at 25, working for some of Europe's most prestigious

fashion houses and along with Mary Quant, laid claim to inventing the miniskirt.

For the Bagheera, Courrèges worked on external colour and interior trim. This in a way is counter culture to today's matt-black trend. Its intent was to bring modern design and chic style together in the medium of accessible personalised transport.

Inspiration for the outside colour was the appearance of the 'man in white' in his immaculate white suit. The interior brought white seating and originally white linings, from dash to headliner, all in quality leatherette finish. While the seats stayed white, the liners, along with the carpets, were later changed to a more practical and arguably smarter beige colour. Personalised appointments included leather satchels mounted on each door, instead of door pockets, that one could demount and take away.

All the changes, when added up come to a reasonable list. Exterior wise, satin white finish for all surfaces (except glass!), special alloy wheels, Courrèges logo on the right front fender, Courrèges AC badge on



All Courrèges details



1294cc engine, but adopted the S model mechanicals when they became available. Because Courrèges were not intended to be tuner versions like an AMG or Alpina, but a luxury designer model, mechanical specifications were not changed from standard. However, they always used the fastest version available. 216 Mk1 Bagheera Courrèges were built, and 445 Mk2s in 1976-77 when production finished.

the driver's door and light-grey wiper blades! Other interior fitments included gold trim on the steering wheel, new clock and other minor detailing. All this put the purchase price up from the base car's 33,100 FF or 36,200 for the S, to 38,700 FF, as of September 1975.

The first series Courrèges went on sale in September 1974 with the original twin carb

Bagheera X35, X65 and X6; 1978-1979.

A step down from the Courrèges were the X models. Special interior features of this car are the seats in special silver-grey material and some extra luxury appointing. As can be seen in the photos, special mag wheels and paint finish were also part of the deal. The X series cars were made in all the



Above: Bagheera X

mechanical specs that were available at the time of production; 1294cc 84bhp Mk1 X3550 from 1974 to 1978, 1442cc 90bhp Mk1 X6550 from 1975 to 79, 1442cc 84bhp Mk2 X6 and 1442cc 90bhp Mk2 versions from 1979-1980. A total of 1440 in all were made.

Bagheera U8

At the time of the original Bagheera's release, many commented that the car looked like it would or should have had a large V8 under the hood, and that it was a bit of a shock to open the hatch and see a small 4.

Although Chrysler-Simca had no wish to introduce bigger engines because these would have required major re-engineering of the drivetrain since their only larger engines at the time were of a different design from the east-west fwd 1100Ti and 1308GT units used in the Bagheera, the Matra factory did experiment with modifying and tuning the existing engines to achieve higher performance. None of these saw the light of day, not in the public gaze at least, but the most radical project did and resulted in many a motoring scribe hinting heavily at Chrysler-Simca that what the

Bagheera needed most was a small V8 based on two 1294cc blocks.

The car in question was the M560; a stretched Mk1 with a U8 engine mounted longitudinally - the Bagheera U8. It





the Simca 1000 engines rotate in the opposite direction from normal, which would have made fitting a Porsche transaxle much simpler and would have kept the crown-wheel driving in the correct direction without any changes.

Quoted power and torque pretty much double that of the Ti engine; 168bhp at 6200rpm (126kW) and 159 lb.ft of torque at 4000rpm (216Nm).

was first shown to the public in June 1973, so was obviously being created by the Matra engineers in parallel with the production car.

The Bagheera U8 may have the only U8 engine ever made, or at least by a car manufacturer, and consisted of two 1294cc engines mounted side by side, front to back – i.e. in the opposite direction to one-another, at an 80 degree included angle, with each using its own crankshaft. They were joined structurally at the crankcase, and with large almost triangular steel plates at each end.

The engines were in fact from two different model Simcas that used the same 1.3 litre Type 315 engine in the same state of tune; the 1100Ti originally in east-west location, and the Simca 1000 Rallye II originally in north-south location. The Ti engine is 'geared' to the Rallye II engine with a chain just before the clutch of the Rallye II motor. The clutch and bell-housing location of the north-south Rallye II engine remain intact which provided mounting for the new longitudinally located transaxle.

It would appear that the clutch was upgraded, though no literature specifically mentions this; however the standard Bagheera east-west 4-speed transaxle was replaced by a north-south 5-speed Porsche 'box. Most Porsche transaxles are fitted to rear engined cars, whereas the Bagheera U8 was mid-engined. If I am not mistaken,



Total capacity was now double at 2588cc, obviously, while all other features remained the same too, in duplicate; 4 Weber 36 DCNF carburetors, pushrod ohv with 2 valves per cylinder, 9.8:1 compression, twin water pumps and so forth. Fuel capacity went up to 80 litres (about 17.8 gallons – a good sized tank for such a small car!), while ventilated disc brakes of unspecified dimension were fitted in place of the original solid discs.

The Bagheera U8 ended up 17" longer than the standard car, its new dimensions being 4140x1220x1734mm (163.0x48.0x68.3" length, height, width), 1202kg Kerb (oil, water, half fuel), 2600x1381/1442mm (102.4x54.4/56.8" wheelbase, front/ rear tracks). Body wise, these dimensions are almost unchanged from the standard car,



except for the length, and the width which increased by 20mm with extended wheel-arch flares to accommodate wider tyres.

While the wheelbase is increased by 230mm (9.1"), the tracks are apparently narrower. However, the total measurement from outside tyrewall to tyrewall is greater due to the larger/ wider types, which are 185/70 VR14 front, 205/70 VR14 rear, but the track (measured to the centre of tyre contact patch) has decreased due to a greater inset of the new wider rims (i.e. their width is increased more towards the inside of the rim than the outside).

Performance wise, top speed was measured at 232kph/ 144hph, but no other performance figures have been provided. 15,000 km were covered in testing the prototype, before it was reportedly dismantled. These were hard test miles, and were reflected in the fuel consumption which was around 18 litres/ 100km (just over 16 miles per gallon). This was not what Simca wanted to hear, especially as a world-wide fuel crisis struck shortly after its launch. However, this figure is not likely a completely honest one as with the extra power and torque, lighter use of the throttle in normal traffic conditions would have been expected.

There were bodywork changes made to the U8 that weren't on the standard cars, and these were said to be 'experiments' in alternative or updated styling solutions for possible future use in production models. They included side air intakes ahead of the rear wheel arches, slightly different

treatments to the taillights and surrounds, plus detail revisions around the front bumpers.

The original prototype's rear chassis was based on the design of the production car, but this was later replaced with a tubular steel subframe to help study various mounting arrangements for the engine, transmission and possibly even suspension.

It is said that 3 U8s were built in total, and the project was kept alive until 1975, not long before the Mk2 was released. Perhaps there was more to the non-eventuation of the Bagheera U8 than has been revealed, as that is quite a long period for a prototype or three to be run and tested before being dropped. Two cars were completed in the final form seen in the photos, plus one prior hack that was used in disguise and for experimenting with various styling and engineering solutions. Only one car is known to remain, and that is displayed along with a U8 engine at the Matra museum in Romorantin, France.



BAGHEERA in Competition

By 1974 Matra had been in existence for 10 years, and for all of those 10 years they had been involved in motorsport, from the

original D'jet racing at Le Mans to Jackie Stewarts F1 title in 1969 with the Cosworth-powered Tyrrell-campaigned Matra MS10. This was followed in 1972-3-4 with 3 wins in a row at Le Mans, and by 1974 they had won 124 major races, including Formula 2 and 3. So it would seem almost given that Matra would campaign the Bagheera, and indeed they did, but with not a lot of success.

Its first motorsport outing was as a Pace Car for the 1973 Le Mans, yet when it competed in its first real major event, the

Francis Chopy; head of press. The next year the same team entered the Acropolis rally but didn't finish. They managed a 53th in the Lombard rally, coming 2nd in *Group 4*. Through 1978 to 80, a handful of other rallies were entered but all resulted in DNFs from mechanical failures, except the '78 Tour Auto where they won their class. This may all seem a bit of a failure, yet one needs to consider the level at which they ran. In this the Bagheera was quite successful, but it was not a class that drew much kudos or media attention.

As a slightly interesting bookend to the Bagheera story, the terms to set apart the first series from the second series cars was not officially set, with most simply calling the second series Bagheera S as most sold were of the S specification. Hence we see the terms MK1 and Mk2, Series 1 and 2, S1 and S2, and Type 1 and Type II or 2 all used. And indeed, the last X-models have even been called Type IIIs ☺.



Rally Portugal 1977 above

1976 RAC Lombard rally, it managed only 42nd. Mind you, it started in position 103 and ran in *Group 4* only, which was not a title winning class. And only one car entered for drivers Roland Thérond and

